

Supplemental Note**Overview of Supporting Data Analysis**

The purpose of this note is to provide a brief overview of all the reports the committee reviewed over the course of the year. For each report, only Registrar rooms were included in the analysis.

- Seat utilization of classrooms
 - Analysis of the percentage of seats in a classroom that are occupied by students for a given class; comparisons were made between encumbered and unencumbered rooms as well as between room types and sizes (seminar rooms, small, medium, and large lecture rooms)
- Time utilization of classrooms
 - Analysis of the number of hours a room is utilized for class instruction over the course of a week; comparisons were made between encumbered and unencumbered rooms
- Classroom demand model
 - Historical analysis of the number of classes offered, class meeting hours per week, and enrollments from 1997 to 2010 including a three year projection anticipating classroom demand in 2012-2013
- Distribution of class times
 - Analysis of when classes are scheduled over the course of the day and week; seminars, language classes, small, medium, and large enrollment lectures were analyzed separately
- Usage of classrooms on Fridays
 - Analysis of classes held on Fridays, including lectures, seminars, language classes, and discussion/recitation sections
- Student group usage of classrooms
 - Analysis of student group usage of classrooms over the course of the day and week
- Distribution of encumbered and electronic Registrar rooms
- Department survey of science teaching lab needs
- Faculty survey on electronic room usage and needs
- ADA survey on class scheduling and room assignments
- Registration patterns for A&S undergraduate students
 - Analysis of the number of points for which students in the College and General Studies registered at three points in time, after the registration period, after the add period, and after the drop period, to determine the degree of volatility in class enrollments
- Peer comparison
 - Evaluation of staffing and structuring of University Registrars for classroom scheduling and room assignments

Registrar Rooms: Electronic Rooms

	As of Spring 2010		As of Fall 2010		As of January 2011	
Total Number of Registrar Rooms*	132		132		132	
Electronic Classroom	60	45%	76	58%	83	63%
Electronic Computer Lab	3	2%	3	2%	3	2%
Electronic Total	63	48%	79	60%	86	65%
Non-Electronic	69	52%	53	40%	46	35%

Rooms Converted to Electronic Capability Summer 2010

HAMILTON HALL	315
HAMILTON HALL	316
HAMILTON HALL	317
HAMILTON HALL	318
HAMILTON HALL	404
HAMILTON HALL	413
HAMILTON HALL	507
HAMILTON HALL	509
HAMILTON HALL	609
INTERNATIONAL AFFAIRS	253
INTERNATIONAL AFFAIRS	1101
KENT HALL	424
PUPIN LABORATORIES	412
PUPIN LABORATORIES	414
PUPIN LABORATORIES	420
PUPIN LABORATORIES	428

Rooms Converted to Electronic Capability January 2011

FAYERWEATHER	313
FAYERWEATHER	301M
MATHEMATICS BUILDING	520
MATHEMATICS BUILDING	203
MATHEMATICS BUILDING	312
PUPIN LABORATORIES	214
PUPIN LABORATORIES	329

*Includes 19 SIPA and SEAS encumbered rooms

Growth in Classroom Demand, 1997-2010

Arts and Sciences Classes in Registrar Rooms

Academic Year	Class Meetings		Total Enrollment	Enrollments in A&S Classes by Student School											Overall Indicators			
	# of Classes	# of class meeting hours/week		CC	GS	GSAS MA/PHD (A&S Only)	GSAS MAO	GSAS Non-Degree	Arts	SCE (MS, post-bac)	SIPA	SEAS UG	SEAS G	SEAS PhD	BC	Avg. Class Length	Avg. # of Students/Class	Avg. # of classes/Room
1997-1998	1,769	4,693	41,205	20,260	3,215	2146	555	73	197	892	2,891	4,448	94	16	4,354	2.7	23.3	16.7
2000-2001	1,884	4,930	46,935	23,222	3,971	1986	1085	98	379	970	3,739	4,868	95	36	4,748	2.6	24.9	-
2003-2004	1,994	5,176	50,635	24,399	4,169	1684	1573	140	204	1,444	4,922	5,239	198	60	4,515	2.6	25.4	-
2006-2007	2,168	5,617	53,844	24,863	4,949	1748	2269	162	83	1,768	4,682	5,426	141	62	4,947	2.6	24.8	-
2009-2010	2,388	6,057	61,423	28,090	6,361	1840	3081	152	158	2,273	4,796	5,460	248	102	5,813	2.5	25.7	20.1
Projection 2012-2013	2,497	6,319	65,012	29,357	6,714	1,626	3,583	192	92	2,537	5,632	5,863	261	115	5,811			
# Increase from 1997-1998 to 2009-2010	619	1,364	20,218	7,830	3,146	-306	2,526	79	-39	1,381	1,905	1,012	154	86	1,459			
Percent Increase from 1997-1998 to 2009-2010	35.0%	29.1%	49.1%	38.6%	97.9%	-14.3%	455.1%	108.2%	-19.8%	154.8%	65.9%	22.75%	163.83%	537.50%	33.51%			

Notes:

Only courses taught over the full fall or spring terms are included (i.e. X5 code).

Discussion and recitation sections are not included

As this is a historical analysis, classes offered by SIPA are included

For Average # of classes per room: For 1997-98, the 14 SEAS rooms in MUDD and Engineering Terrace are excluded leaving 106 rooms;

for 2009-2010, the 13 SEAS rooms are excluded leaving 119 rooms. The SEAS rooms are excluded as they are assigned to classes in a separate process.

Students from the schools listed above make up between 94% and 96% of total enrollment

The A&S classes housed in Registrar rooms makes up between 92% and 97% of all classes in Registrar rooms

Projections are based on a linear trend line (least squares regression)

SEAS G includes DES, ELE, INE, MEE, MS, Certificates, Non-degree

Appendix 4

The Current Schedule of Classes

Master University Day/Time Schedule Current *

Course Type	Schools	Morning	Afternoon	Evening
3 - Point Lecture Courses	Barnard College, Columbia College, Engineering (E3000 & E4000), General Studies, and Graduate School of Arts & Sciences (W4000 classes only)	MWTF 9 - 9:50 or MW 9:10 - 10:25 or TuTh 9:10 - 10:25	MWTF 1:10 - 2 or MW 1:10 - 2:25 or TuTh 1:10 - 2:25	MW 5:40 - 6:55 or TuTh 5:40 - 6:55
		MWTF 10 - 10:50 or MW 10:35 - 11:50 or TuTh 10:35 - 11:50	MW 2:40 - 3:55 or TuTh 2:40 - 3:55	MW 6:10 - 7:25 or TuTh 6:10 - 7:25
		MWTF 11 - 11:50 or MW 11 - 12:15	MW 4:10 - 5:25 or TuTh 4:10 - 5:25	MW 7:40 - 8:55 or TuTh 7:40 - 8:55
		MWTF 12 - 12:50 or WTF 11 - 12:15		
Undergraduate Colloquia and Seminars	Barnard College, Columbia College and General Studies, Graduate Lecture Courses and Seminars, Architecture, Engineering (E6000 & E8000), Graduate School of Arts & Sciences (G4000 - G9000) and Law (Seminars only)	M to F 9 - 10:50 or 11 - 12:50	M - F 2:10 - 4 or 4:10 - 6	M - F 6:10 - 8 or 8:10 - 10

Appendix 4

LANGUAGE INSTRUCTION TIME SLOTS

3 DAYS/WK

Mon, Wed, Fri OR Tues, Thurs, Fri 75 Minute Slots, 4 Pt Courses Only (PLEASE NOTE DUE TO CONTACT HOUR REQUIREMENTS, 5 PT COURSES CANNOT MEET IN THIS CONFIGURATION)	9:10-10:25AM
	10:35-11:50AM
	1:10-2:25PM
	2:40-3:55PM
	4:10-5:25PM
	5:40-6:55PM
	6:10-7:25PM
	7:40-8:55PM

4 DAYS/WK

Mon, Tues, Wed, Thurs 65 Minute Slots, 4 or 5 Pt Courses (NOTE THE ADDITION OF 7:55 AND 12:00 SLOTS, REMAINING SLOTS ARE ALIGNED WITH EXISTING START TIMES ON UNIVERSITY SCHEDULE)	7:55-9:00AM
	9:10-10:15AM
	10:35-11:40AM
	12:00-1:05PM
	2:40-3:45PM
	4:10-5:15PM
	5:40-6:45PM
	6:10-7:15PM
Mon, Tues, Wed, Thurs 50 Minute Slots, 4 Pt Courses Only (THESE ARE THE EXISTING 50 MIN SLOTS ON THE UNIVERSITY SCHEDULE)	7:40-8:45PM
	8:00-8:50AM
	9:00-9:50AM
	10:00-10:50AM
	11:00-11:50AM
	12:00-12:50PM
1:10-2:00PM	

5 DAYS/WK

Mon, Tues, Wed, Thurs, Fri 50 Minute Slots, 5 Pt Courses (THESE ARE THE EXISTING 50 MIN SLOTS ON THE UNIVERSITY SCHEDULE)	8:00-8:50AM
	9:00-9:50AM
	10:00-10:50AM
	11:00-11:50AM
	12:00-12:50PM
	1:10-2:00PM

THE REVISED SCHEDULE OF CLASSES

Lectures	Seminars	Language	Language	Language Or Disc. Sections
75 minutes MW or TR	110 minutes MTWRF	75 minutes MWR or TRF	65 minutes MTWR	50 minutes MTWR or MTWRF
8:40-9:55		8:40-9:55	8:50-9:55	8:10-9:00
9:55-10:10		9:55-10:10	9:55-10:10	9:00-9:15 9:15-10:05
10:10-11:25	9:55-11:45	10:10-11:25	10:10-11:15	10:05-10:20 10:20-11:10
11:25-11:40	11:45-12:00	11:25-11:40	11:15-11:40	11:10-11:25 11:25-12:15
11:40-12:55	12:00-1:50	11:40-12:55	11:40-12:45	12:15-12:30 12:30-1:20
12:55-1:10		12:55-1:10	12:45-1:10	1:20-1:35 1:35-2:25
1:10-2:25	1:50-2:05	1:10-2:25	1:10-2:15	2:25-2:40 2:40-3:30
2:25-2:40	2:05-3:55	2:25-2:40	2:15-2:40	3:30-3:45 3:45-4:35
2:40-3:55		2:40-3:55	2:40-3:45	4:35-4:50 4:50-5:40
3:55-4:10	3:55-4:10	3:55-4:10	3:45-4:10	5:40-5:55 5:55-6:45
4:10-5:25	4:10-6:00	4:10-5:25	4:10-5:15	6:45-7:00 7:00-7:50
5:25-5:40	6:00-6:10	5:25-5:40	5:15-5:40	7:50-8:05 8:05-8:55
5:40-6:55	6:10-8:00	5:40-6:55	5:40-6:45	
6:55-7:10		6:55-7:10	6:45-7:10	
7:10-8:25	8:00-8:10	7:10-8:25	7:10-8:15	
8:25-8:40	8:10-10:00	8:25-8:40	8:15-8:35	
8:40-9:55		8:40-9:55	8:35-9:40	

Each break between class sessions is 15 minutes unless color coded as below:

- 10 minute break
- 25 minute break

DRAFT

Guidelines for Class Scheduling

Please observe the following guidelines when scheduling classes:

- All courses must be scheduled according to the official Schedule of Classes unless an exception has been granted by the appropriate Committee on Instruction (COI).
- During peak times, classes should be scheduled as follows:
 - For seminars (or colloquia),
 - Schedule at least one seminar in each of the Monday, Tuesday, Wednesday, or Thursday slots between 9:35 am and 6:00 pm before scheduling a second seminar in that particular day/time slot.
 - The same criteria should be followed before scheduling a third, fourth, fifth, etc., class in a given day/time slot.
 - 10% of departmental seminars should be scheduled on Fridays.
 - For lectures,
 - Schedule at least one lecture in each of the lecture slots Monday/Wednesday and Tuesday/Thursday between 8:40 am and 6:55 pm before scheduling a second lecture in that particular day/time slot.
 - The same criteria should be followed before scheduling a third, fourth, fifth, etc., class in a given day/time slot.
 - Two or more lectures that have anticipated enrollments above 80 students each must not be scheduled in the same lecture time slot.
 - For language classes,
 - Schedule at least one language class in each of the language slots between 8:40 am and 6:55 pm for 3 weekly class meetings, between 8:50 am and 6:45 pm for 4 weekly class meetings, between 9:15 am and 6:45 pm for the 4 weekly class meetings, and between 9:15 am and 2:25 pm for the 5 weekly class meetings.
 - The same criteria should be followed before scheduling a third, fourth, fifth, etc., class in a given day/time slot.
- Departmental class schedules (including required additional meetings such as recitation/discussion sections) should be submitted to the Registrar prior to the registration period each term.

Classroom Committee Recommendations - Implementation Timeline

Summer 2010	Fall 2010	Spring 2011	Fall 2011	Fall 2012	Fall 2014
<p>By summer of 2012 all Arts and Science classrooms be equipped with a basic suite of electronic supports including computer podium, projector, screen, and multi-regional dvd and that more elaborate electronic supports be installed in large lecture halls and other special-use rooms as needed;</p>	<p>The budgets for maintenance of registrar classrooms and furniture replacement be kept at levels commensurate with those that obtained in 2008-09.</p>	<p>A small standing committee composed of members of the Arts and Science faculty, CUIT, the GSAS Center for Teaching, and the Center for New Media, Teaching, and Learning be appointed to explore emerging technology that would support the pedagogical needs and ambitions of the faculty and would make recommendations on an ongoing basis to the Vice President and the Deputy Vice President for Strategic Planning for Arts and Sciences for additional electronic enhancements to specific classrooms or types of classrooms.</p>	<p>Departments submit a list of four buildings, in rank order, where their classes can be scheduled. *</p>	<p>Adoption of a new schedule of classes *</p>	<p>Implementation of a single, shared electronic instrument through which all curricular submissions are made</p>
	<p>That every semester the information concerning the state of classrooms supplied on student course evaluations be systematically compiled and sent to the person within Facilities charges with overseeing classroom maintenance. That person will, in turn, report each semester to the Deputy Vice President for Strategic Planning in Arts and Sciences the steps taken to ameliorate the problems that have been identified.</p>	<p>Converting some of the science library space opened up by the move to the Northwest Corner Building to classroom space, both large lecture space and laboratory teaching space. To this end the Deputy Vice President for Strategic Planning for Arts and Sciences will work with COSI, the Arts and Science leadership, and the Provost's office to assess the available space and the most reasonable ways to refigure some of it for instructional purposes.</p>	<p>The CPS be refined to achieve several desired outcomes.**</p>	<p>Each department schedule at least 10% of its graduate and/or undergraduate seminars on Friday, excepting only courses required for the major or for the degree.*</p>	
		<p>Departments each semester submit to the Registrar a record of classes, labs, and recitation/discussion sections scheduled by them in sequestered classrooms.</p>	<p>Classes with smaller enrollments may be moved at the Registrar's discretion out of classrooms needed to accommodate classes with larger enrollments</p>	<p>Departments that do not currently have students register for recitation/discussion sections and labs when they register for the course will begin to move to a system of doing so.*</p>	
				<p>"Guidelines for Class Scheduling" be followed when departments submit each semester's courses to the Registrar.*</p>	

*will actually start in prior spring for fall classes

**will start in fall 2011 for 2012-2013 curricula

NOTE: If, 3 years after implementation of all above recommendations, further steps are needed, the Arts and Sciences will experiment with moving some big lectures to a Tuesday/Friday and Wednesday/Friday schedule